Service Manual

DVCPRO

DVCPRO Studio VTR

AJ-D850AP
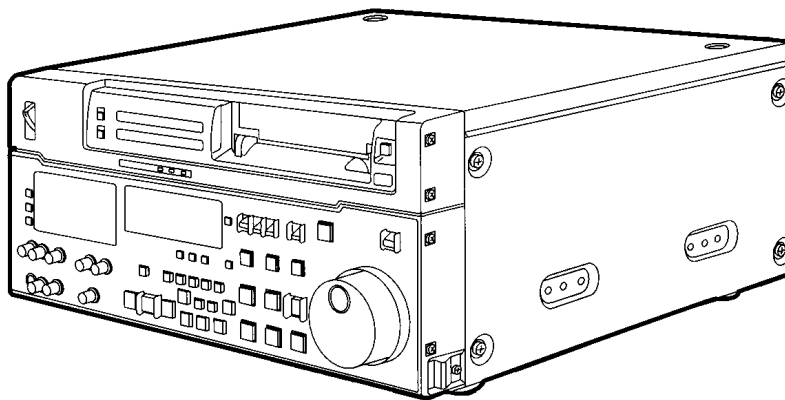
Panasonic

Introduction

AJ-D850AP was equipped with the JOG Audio improvement kit (AJ-MK850E) to AJ-D850P.

Please refer to the following the Service Manuals.

AJ-D850P/E Vol.1, Order No. VSD9903M901A (or CD-ROM)

AJ-D850P/E Vol.2, Order No. VSD9903M901B

AJ-MK850E, Order No. BSD0008M604

Specifications

GENERAL

Power supply:	AC 120 V, 50 – 60 Hz
Power consumption:	210 W

Operating ambient temperature:	41°F to 104°F (5°C to 40°C)
Operating ambient humidity:	10% to 90% (no condensation)
Weight:	36.96 lbs (16.8 kg)
Dimensions (W × H × D):	16-3/4 × 6-15/16 × 16-3/8 inches
Recording format:	DVCPRO format
Recording tracks:	Digital video
	Time code; Recorded in sub-code area
	Digital audio; 2 channels
	Cue Signal; 1 track
	Control (CTL); 1 track
Tape speed:	33.820 mm/sec
Recording time:	184 minutes (with AJ-5P92LP)
	66 minutes (with AJ-P66MP)
Tape:	1/4-inch thin magnetic layer metal tape
FF/REW time:	Less than 3 minutes (with AJ-5P92LP)
	Less than 2 minutes (with AJ-P66MP)
Editing accuracy:	±0 frame (using time code)
Tape timer accuracy:	±1 frame (using continuous CTL signal)
Servo lock time:	Less than 0.5 sec.
	(color framing/ standby ON)

VIDEO

(Digital video)

Sampling frequencies:	Y; 13.5 MHz/P_B, P_R; 3.375 MHz
Quantizing:	8 bits
Error correction:	Reed-Solomon product code

(Digital IN/analog component OUT)

Video bandwidth:	Y;	30 Hz to 5.5 MHz (±0.5 dB)
		5.75 MHz (–2 dB)
	P_B, P_R;	30 Hz to 1.3 MHz (±1 dB)
		1.5 MHz (–5 dB) typ.
S/N ratio:		Better than 60 dB
K factor:		Less than 1%

(Analog component IN/component OUT)

Video bandwidth:	Y;	30 Hz to 5.5 MHz (±1 dB)
		5.75 MHz (–3 dB)
	P_B, P_R;	30 Hz to 1.3 MHz (±1 dB)
		1.5 MHz (–6 dB) typ.
S/N ratio:		Better than 55 dB
K factor:		Less than 1%

(Analog composite IN/composite OUT)

Video bandwidth:	Y; 30 Hz to 4.5 MHz (±1 dB)
DG:	Less than 4%
DP:	Less than 3°
Y/C delay:	Better than 20 nsec
K factor:	Less than 2%

(Video input connector)

Analog component input:	BNC×3 (Y, P_B, P_R)
	Y; 1.0 Vp-p, 75Ω
	P_B, P_R; 0.486/0.7 Vp-p switchable, 75Ω
	(75% color bar, 7.5% setup)
Analog composite input:	BNC×2, loop-through, 75Ω on/off
Reference input:	Analog composite
	BNC×2, loop-through, 75Ω on/off
Serial digital component input (option):	Complies with SMPTE 259M-C standard, BNC×2, active through

(Video output connector)

Analog component output:	BNC×3 (Y, P_B, P_R)
	Y; 1.0 Vp-p, 75Ω
	P_B, P_R; 0.486/0.7 Vp-p switchable, 75Ω
	(75% color bar, 7.5% setup)
Analog composite output:	BNC×3
	Video1/video2/video3 (superimpose on/off)
Serial digital component output (option):	Complies with SMPTE 259M-C standard, BNC×3

(Video signals adjustment)

Composite video input signal:	±3 dB
Video output gain:	±3 dB
Video output chroma gain:	±3 dB
Video output hue:	±30°
Video output setup:	±15 IRE
Video output sync phase:	±15 μsec
Video output SC phase:	±180°
Video output Y/C delay:	±300 nsec

AUDIO

(Digital audio)

Sampling frequencies:	48 kHz
Quantizing:	16 bits
Frequency response:	20 Hz to 20 kHz ±1 dB
Dynamic range:	Better than 90 dB (1 kHz, emphasis OFF, "A" weighted)
Distortion:	Less than 0.05% (1 kHz, emphasis OFF, standard level)
Crosstalk:	Less than –80 dB (1 kHz, between 2 channels)
Wow & flutter:	Below measurable limit
Headroom:	20 dB
Emphasis:	T1=50 μsec/T2=15 μsec (on/off selectable)

(Cue track)

Frequency response:	300 Hz to 6 kHz ±3 dB

(Audio input connector)

Analog input (CH1/CH2):	XLR×2, 600Ω/high impedance selectable, +4/0/–20 dBu
Digital input (CH1/CH2):	XLR×1, AES/EBU format
Serial digital input (option):	Complies with SMPTE 259M-C, 272M standard (BNC, 75Ω)
Cue track input:	XLR×1, 600Ω/high impedance selectable, +4/0/–20/–60 dBu

(Audio output connector)

Analog output (CH1/CH2):	XLR×2, low impedance, +4/0/–20 dBu
Digital output (CH1/CH2):	XLR×1, AES/EBU format
Serial digital output (option):	Complies with SMPTE 259M-C, 272M standard (BNC, 75Ω)
Cue track output:	XLR×1, low impedance, +4/0/–20 dBu
Monitor output:	XLR×2, low impedance, +4/0/–20 dBu
Headphones:	Variable level, mini-jack, 8Ω

Other input/output connector

Time code input:	XLR×1, 0.5 to 8 Vp-p
Time code output:	XLR×1, 2.0 Vp-p
RS-422A input/output:	D-sub 9-pin, RS-422A interface
RS-422A output:	D-sub 9-pin, RS-422A interface
RS-232C:	D-sub 25-pin, RS-232C interface
Parallel input/output:	D-sub 25-pin
Encoder remote:	D-sub 15-pin

Weight and dimensions shown are approximately.
Specifications are subject to change without notice.